

Claims

1. A driving apparatus of a sliding-type portable
wireless terminal using a magnetic body, the terminal
5 having a main body and a sub-body adapted to slide along
the longitudinal direction of the main body to be
opened/closed, the driving apparatus comprising:

a first magnetic body module positioned on the
rear surface of the sub-body and having a magnetic body
10 fastened thereon, which has a predetermined polarity and
which extends along the longitudinal direction thereof,
and

a second magnetic body module positioned on the
front surface of the main body and having a magnetic
15 body fastened thereon, which has a predetermined
polarity and faces the magnetic body of the first
magnetic body module.

2. A driving apparatus of a sliding-type portable
20 wireless terminal using a magnetic body as claimed in
claim 1, wherein the magnetic body of the first magnetic
body module has a polarity, in both ends thereof, which
exerts a drawing force in relation to the magnetic body
of the second magnetic body module and another polarity,
25 in the central portion thereof, which exerts a repulsive
force in relation to the magnetic body of the second
magnetic body module.

3. A driving apparatus of a sliding-type portable
30 wireless terminal using a magnetic body as claimed in
claim 1, wherein the first magnetic body module has a
first base plate fastened on the rear surface of the
sub-body, a pair of sliding guides fastened on a surface

of the base plate and extending along the longitudinal direction of the first base plate, and the magnetic body fastened on a surface of the first base plate.

5 4. A driving apparatus of a sliding-type portable
wireless terminal using a magnetic body as claimed in
claim 3, wherein the second magnetic body module has a
second base plate adapted to face the first base plate
and sliding grooves formed on a surface of the second
10 base plate to be engaged with the sliding guides for
sliding, and the magnetic body of the second magnetic
body module is fastened on a surface of the second base
plate and faces the magnetic body of the first magnetic
body module, which is fastened on a surface of the first
15 base plate.

 5. A driving apparatus of a sliding-type portable
wireless terminal using a magnetic body as claimed in
claim 1, wherein the first magnetic body module includes
20 three pairs of N and S poles alternated along the
longitudinal direction thereof and the second magnetic
body module includes S and N poles so that the sub-body
can be stopped in first, second, and third positions as
it slides on the main body.

25 6. A driving apparatus of a sliding-type portable
wireless terminal using a magnetic body as claimed in
claim 5, wherein the main body has first and second
regions defined in series along the longitudinal
30 direction thereof in the lower half portion of the front
surface thereof, and the sub-body is adapted to
completely cover both the first and second regions when
stopped in the first position, to expose only the first

region when stopped in the second position, and to expose both the first and second regions when stopped in the third position.

5 7. A driving apparatus of a sliding-type portable
wireless terminal using a magnetic body as claimed in
claim 5, wherein the first magnetic body module has
first, second, and third magnetic bodies having the
polarity of N and S poles and arranged linearly along
10 the longitudinal direction thereof.

 8. A driving apparatus of a sliding-type portable
wireless terminal using a magnetic body as claimed in
claim 5, wherein the main body has a first region
15 defined in the lower end of its front surface and a
second region in the upper end thereof, and the sub-body
is adapted to completely cover both the first and second
regions when stopped in the first position, to expose
the first region when stopped in the second position,
20 and to expose the second region when stopped in the
third position.

 9. A driving apparatus of a sliding-type portable
wireless terminal using a magnetic body as claimed in
25 claim 1, wherein the first and second magnetic body
modules are provided with shield members so that the
magnetic force from the magnetic bodies, which are
fastened thereon, cannot be discharged out of the
driving apparatus.

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 10. A driving apparatus of a sliding-type portable
wireless terminal using a magnetic body as claimed in
claim 9, wherein the first magnetic body module has a

first base plate fastened on the rear surface of the sub-body, the second magnetic body module has a second base plate fastened on the front surface of the main body and coupled to the first base plate in such a manner that it can slide while facing the first base plate, and the shield members are positioned on respective surfaces of the first and second base plates.

11. A driving apparatus of a sliding-type portable wireless terminal using a magnetic body as claimed in claim 9, wherein the shield members are made of a material chosen from the group comprising a spring steel plate, an electric zinc-plated steel plate, and a silicon steel plate.

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